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Industrial Management Review

Alfred P. Sloan School of Management
Massachusetts Institute of Technology

Volume 6, Number 1 Fall, 1964

An Editorial—Foreign Investment: Some "Unthinkable Thoughts"		1
New Directions in Industrial Dynamics	Edward B. Roberts	5
An Industrialist Views Industrial Dynamics	Bruce R. Carlson	15
How Managers Use Industrial Dynamics	Kenneth J. Schlager	21
The Management of Tension in Organization: Some Preliminary Findings	David E. Berlew and Douglas T. Hall	31
The Management-as-a-Process Concept: A Consideration	John W. Darr	41
The Internal-External Dichotomy in Business Organizations	Gerhard W. Ditz	51
Joint Ventures or Transnational Business?	Richard D. Robinson	59
Organizational Conflict: A Framework for Reappraisal	Leonard Rico	67
The Effect of Role-Playing in a Problem-Solving Situation	Michael M. Gold and Andrew C. Stedry	81
Book Reviews		103

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The Management of Tension in Organization:

Some Preliminary Findings*

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Introduction

Between every individual and the organization for which he works is a "psychological contract," defined by the expectations of the individual and of the organization. Some of these contractual expectations are very explicit, such as desired salary or required technical competence. Others are implicit, such as the desire to be challenged or the expectation that the individual will adhere to company norms. The mutual fulfillment or nonfulfillment or these expectations, whether implicit or explicit, is related to the personal adjustment and career development of the individual and to the efficient functioning of the organization. The relationship between the individual and the organization can be viewed as an on-going series of contract negotiations which attempt to maintain a balance between (1) the company's expectations of the individual and the individual's fulfillment of those expectations, and (2) the individual's expectations of the company and the company's fulfillment of those expectations. When expectations are not met there is a disequilibrium which, under certain conditions, can be viewed as a source of stress. This stress can lie with the individual (as when personal expectations are not met) or with the organization (as when its expectations are not fulfilled).

The purpose of the research reported here was to study the reaction of the organization to a state of disequilibrium brought about by a violation of one aspect of the psychological contract: the individual's fulfillment of the organization's expectations. When the expectations of the organization are not met by its employees, how does it react? Are there forces operating to return the system (organization) to a state of equilibrium? If so, how are they manifested, and are they adaptive or unadaptive in terms of organizational objectives?

The Barnard-Simon Model

One of the first students of organization theory to describe the employment relationship in a contractual framework was Chester Barnard. In his "theory of cooperative systems and of organizations," Barnard considered the process "by which the life of the organization is maintained."[1] Basically these processes serve to satisfy the requirements of both the organization and the individual.

"The persistence of cooperation depends upon two conditions: (a) its effectiveness, and (b) its efficiency. Effectiveness relates to the accomplishment of the cooperative purpose, which is social and non-personal in character. Efficiency relates to the satisfaction of individual motives, and is personal in character.

"The test of effectiveness is the accomplishment of a common purpose or purposes: effectiveness can be mea ured. The

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*The materials which form the basis of this research were collected by the American Telephone and Telegraph Company as part of the Bell System's Management Progress Study. In this regard, we are indebted to Dr. Douglas Bray, Director of the Management Progress Study, and to W. D. Bachelis, H. W. Clarke, Jr., K. Connors, A. Derks, W. S. Felton, W. H. James, J. P. McKinney, D. B. Muirhead, W. Katkovsky, and J. F. Rychlak. The planning and execution of the research are the sole responsibility of the authors, and the conclusions reached do not necessarily reflect the views of the Management Progress Study.

This research was supported in part by grants from the Russell Sage Foundation and the Foundation for Research on Human Behavior.

This work was done in part at the Computation Center of the Massachusetts Institute of Technology.

[1]Barnard [3], p. 60.

test of efficiency is the eliciting of sufficient individual wills to cooperate."[2]

Simon[3] further developed the Barnard model, placing primary emphasis for organizational survival upon the achievement of efficiency. "The Barnard-Simon theory of organizational equilibrium is essentially a theory of motivation, a statement of the conditions under which an organization can induce its members to continue their participation, and hence assure organizational survival."[4] The essence of this theory is contained in the following postulates:

"1. An organization is a system of interrelated social behaviors of a number of persons whom we shall call the *participants* in the organization.

"2. Each participant and each group of participants receives *from* the organization *inducements* in return for which he makes *to* the organization *contributions*.

"3. Each participant will continue his participation in an organization only so long as the inducements offered him are as great or greater (measured in terms of *his* values and in terms of the alternatives open to him) than the contributions he is asked to make.

"4. The contributions provided by the various groups of participants are the source from which the organization manufactures the inducements offered to participants.

"5. Hence, an organization is 'solvent'—and will continue in existence—only so long as the contributions are sufficient to provide inducements in large enough measure to draw forth these contributions."[5]

To elaborate on Barnard's model, March and Simon discuss inducements, inducement utilities, contributions, and contribution utilities. *Inducements* are the payments which the organization makes to its participants in return for the latter's contributions; for example, an employee is paid with wages and an investor with income. *Inducement utilities* are the values which the participants attach to the payments they receive; these are highly individual and are determined by the needs or values of the participant. In return for inducements the participants make *contributions*, or payments; for example, an employee contributes his labor or his technical skill and an investor his capital. *Contribution utilities* are the values which the organization attaches to the various categories of participant contributions, and are determined by the needs and expectations of the organization.

The Barnard-Simon model defines the contract in terms of two balances. From the individual's point of view, the important factors are his contributions and the utility he attaches to the inducements the company provides. Thus, to the extent that he feels that the company's payments are commensurate with his contributions, he will be motivated to remain in the organization. The organization, on the other hand, is interested in the relationship between the inducements it provides and the utility of the individuals' contributions. It will be motivated to continue the relationship to the extent that the value contributed by the individual provides the organization with the resources to continue making these payments to him; i.e., to the extent that it is "getting its money's worth." Therefore, the balance by which the individual evaluates the functioning of the contract is the difference between inducement utility and personal contributions (personal balance); the organization stresses the balance between contribution utility and organizational inducements (company balance).

The Levinson Model

Levinson[6] looks at the psychological contract from another point of view. Whereas the critical variables were viewed by Simon as being company inducements and personal contributions, Levinson focuses his attention on company and personal expectations. Leaning toward a psychoanalytic point of view, he sees the fulfilling of the contract as being contingent upon the handling of 1) dependence, 2) members' needs for "balanced psychological distance" from one another, and 3) change situations. The outcome of this process (called *reciprocation*) of fulfilling the psychological contract is an increased display of individual behavior characteristic of mental health (such as having access to a wide variety of sources of gratification, treating others as individu-

[2] *Ibid.*, p. 60.
[3] See [13].
[4] March and Simon [10], p. 84.
[5] Simon, Smithburg, and Thompson [14], pp. 381-382.
[6] See [9].

QUALITY CONTROL MARK

als, displaying flexibility under stress, accepting one's own limitations and assets, and being productive).

An important aspect of the contract is the way both parties perceive the conditions of their relationship:

"What we emphasize here, however, is the interplay of expectations and their compelling quality. It is as if both employees and company are saying to each other, "You *must*, for I require it." When the employee goes to work, he brings expectations with him. The company tacitly accepts them when it accepts him. In turn, he tacitly accepts the company's expectations. This mutuality, with its inherent obligatory quality and its system of rewards, constitutes a psychological contract."[7]

According to Levinson, the tacit contract states that the organization will meet the individual's expectations (with *company contributions*[8]) and that the individual will meet those of the company (with *personal contributions*[9]). As long as the expectations of both parties are being met, the contract is not violated.

Since he is primarily concerned with the behavior of the individual, Levinson does not elaborate on the consequences to the company of contract violation. However, if the individual's expectations are not met, he reacts by displaying less behavior characteristic of mental health (that is, his sources of gratification become more limited, he becomes less accepting of others, he becomes less flexible under stress, he has difficulty accepting his own limitations and assets, and he becomes less active and productive).

Levinson also considers the matter of who interprets the contract. The individual, of course, evaluates his own satisfaction with the relationship, but who determines the company's interpretation? Levinson's answer is "people in authority," that is, the employee's superiors.[10] They are in the best positions to evaluate dependency relationships, distance, and mutual coping.

[7]*Ibid.*, p. 36.

[8, 9]Levinson does not use the terms "personal contributions" and "company contributions;" they have been borrowed from the Barnard-Simon nomenclature to demonstrate how the models are related. Thus, in Levinson's model, the important balances are 1) the difference between company expectations and personal contributions, and 2) the difference between personal expectations and company contributions.

[10] *Ibid.*, p. 55.

The Research Model

The model used in the present research is similar to the one suggested by Levinson,[11] although we are presently concerned with only one side of the individual-organization relationship: company expectations and individual contributions.[12] Thus, the present research will examine both the expectations that a company has of its employees and the contributions of individual employees. We will be concerned with the "company clause" in the psychological contract, which, if explicit, might read as follows: "The contributions of the employee shall equal or exceed the level of contributions which the company expects of him."

The research model employs one of the balance variables used by Levinson: individual contributions minus company expectations. Considering the possible range of balance scores as a scale from negative through zero to positive, a positive imbalance indicates that a person is contributing more than the company expects of him, a negative imbalance indicates that he is not meeting company expectations, and a zero imbalance means that his contributions are exactly meeting the company's expectations.[13]

Contributions will be defined as the *company's perception* of what the employee contributes, or the value of these contributions to the company. This definition brings us very close to Simon's concept of contribution utilities. To translate this model further into Barnard-Simon language, what we are really measuring when we compare expectations and contributions is what Barnard termed the effectiveness of the individual-organization relationship: "the accomplishment of the cooperative purpose."[14]

[11]Levinson's model considers *explicitly* (i.e., identifies by name) only company expectations and individual expectations. The research model compares individual expectations and company contributions in addition to company expectations and individual contributions, to determine the extent to which the needs of both the individual *and* the organization are being met.

[12]Future research will employ the complete model. For a detailed description of this model, see Upton, W. R., *A Methodology for the Analysis of Individual-Organization Interaction* (unpublished master's thesis, School of Industrial Management, M.I.T., 1964). The contributions of both W. R. Upton and Raymond Fancher to the model are gratefully acknowledged.

[13]Since from now on we will be considering only one party's contributions and one party's expectations, it will be understood that the term "contributions" refers to individual contributions and that "expectations" refers to company expectations.

[14]Barnard [3], p. 60.

Hypotheses

Each of the models emphasizes the importance of both parties' meeting their obligations and thus preventing disequilibrium or imbalance. The principle suggested is that of homeostasis. The concept of homeostasis implies that factors which disturb the natural equilibrium of a system are disruptive and that forces within the system act to restore it once again to a state of equilibrium. According to this view, disequilibrium or imbalance is viewed as tension or strain which the system must reduce if it is to survive.

The principle of homeostasis as applied to organizations can be stated as follows: inherent in an organization, as in any system, are forces which continually act to maintain or restore equilibrium. The following hypotheses are derived from this principle:

Hypothesis I: When company expectations and individual contributions are not equal, individual contributions will change so as to approach the level of company expectations and thus restore equilibrium.

Hypothesis II: When company expectations and individual contributions are not equal, company expectations will change so as to approach the level of individual contributions and thus restore equilibrium.

Hypothesis III: Persistent failure of individuals to meet company expectations will result in contract termination, thus reducing disequilibrium in the total system.

Method

Subjects

The subjects are 60 management-level employees of an operating company of the American Telephone and Telegraph Company. Of these, 49 (nonterminators) remained with the organization through the five years of the study, while 11 (terminators) left. They were all hired in 1956, most of them directly from college, although a few came from other companies. All subjects are college graduates, hired as management trainees.

Variables

Three variables were used in this analysis: individual contributions, company expectations, and company balance. They were developed as follows:

Company expectations: A list of eighteen categories was empirically formulated to reflect the expectations that an organization might have with regard to the behavior and attitudes of its managerial employees. (See Table 1). The expectations of the company with respect to each employee were rated from 1 (low) to 3 (high) in each of the eighteen categories in each of the first five years of the employee's career. A company expectations score was obtained for each subject by summing his eighteen category scores for a particular year.

Individual contributions: Individual contribution ratings, again given for each of five years and ranging from 1 to 3, reflect the company's evaluation of the subject's performance in each of the categories listed in Table 1. An individual contributions score is the sum of a subject's contribution scores for the eighteen categories.

Company balance: A company balance score was computed for each subject by subtracting his company expectations score from his individual contributions score. A positive company balance score indicates that the subject's performance exceeded company expectations, whereas a negative balance indicates a failure to meet expectations. A zero balance, reflecting equilibrium, indicates that the individual contributed exactly what was expected of him.

Source of Data

The data were obtained by coding yearly "follow-up" and "in-company" interviews which were available for the first five years of each subject's career. These interviews were collected by the American Telephone and Telegraph Company as part of the Bell System's Management Progress Study and were made available to the authors for their research. The follow-up interview was a two- to three-hour interview with the subject covering job responsibilities, major sources of satisfaction or dissatisfaction, relationships with peers, subordinates, and superiors, career aspirations and strategies, salary treatment, major occurrences in the past year, significant aspects of personal life, and health. The interviews were conducted each year by consulting psychologists (often the same one) and are characterized by a high degree of openness and trust.

The in-company interviews were held

Table 1 Categories of Company Expectations and Individual Contributions

1. *Technical competence:* the ability to perform non-social job-related tasks requiring some degree of technical knowledge and skill.
2. *Learning capacity:* the ability to learn the various aspects of a position while on the job.
3. *Imagination:* the ability to discover new methods of performing tasks; the ability to solve novel problems.
4. *Persuasiveness:* the ability to present effectively and convincingly a point of view (may be the point of view of the company, a department, a supervisor, or oneself). Persuasiveness should be differentiated from leadership or popularity.
5. *Group membership skills:* the ability to work productively with groups of people. A group may consist of individuals at different levels in the company or of individuals from outside the company.
6. *Communication skills:* the ability to make well-organized, clear presentations orally and in writing.
7. *Supervisory skill:* the ability to supervise and direct effectively the work of others.
8. *Decision-making:* the ability to make responsible decisions well without assistance from others.
9. *Organizing ability:* the ability to plan and organize the work efforts of oneself or others.
10. *Time-energy commitment:* the expenditure of time and energy for the benefit of the company.
11. *Sacrifice of autonomy:* the degree to which the employee accepts company demands that conflict with personal prerogative.
12. *Sociability:* the establishment and maintenance of pleasant social relationships with other members of the company off the job.
13. *Acceptance of company norms:* conformity to the folkways of the organization or work group on the job in areas not directly related to job performance.
14. *Self-development:* formal or informal education pursued off-company time for purposes of increasing one's value to the company.
15. *Maintenance of public image:* the maintenance of a favorable impression outside of the company by employee acting as representative of the company.
16. *Loyalty:* the taking on of company values and goals as one's own; identification with the company.
17. *Productivity:* results; job output; the extent to which employee gets the job done.
18. *Initiative:* drive; self-motivation; the ability to see what should or must be done and to initiate appropriate activity.

with a middle-management personnel man in a position to present the company's evaluation of the subject's job performance. These interviews covered the following areas: jobs the subject held in the preceding year, his division and division manager, his district and district manager, his immediate superior, his job responsibilities, and the company's (i.e., higher management's) evaluation of his contributions and assessment of his future with the company.

Coding Reliability

The interviews were coded for company expectations and individual contributions by two scorers after a month of training. In twelve randomly chosen cases, the correlation coefficient for their sets of company expectations scores was .97. Their individual contributions scores also yielded an r of .97. The reliability coefficient for their sets of company balance scores was .88.

Results

Hypothesis I states that when company expectations and individual contributions are not equal, individual contributions will change so as to approach the level of company expectations, thus restoring equilibrium. In terms of the balance variable (individual contributions minus company expectations), this hypothesis asserts that the change in individual contributions in a given year will be inversely related to the balance existing in the previous year.

Our preliminary research has shown strong correlations (ranging from .80 to .90) between individual contributions and company expectations in any year. This suggests the possibility that a change in company expectations will affect individual contributions. In order to test Hypothesis I, the effects of change in company expectations (due, for example, to a change in jobs) on individual contributions must be controlled. In other words, it was necessary to partial out the effects of company coping in the form of changed expectations in order to perceive the effects of imbalance alone on individual contributions. This was accomplished by computing the partial correlation between company balance scores and change in individual contributions scores with the effects of change in company expectations scores partialled out. Each of the nonterminators' first four yearly com-

pany balance scores was taken as a separate observation, yielding 196 subject-years and 48 degrees of freedom.

The partial correlation between company balance scores in a given year and the change in individual contributions during the following year, with the change in company expectations held constant, is −0.55; this correlation is significant at the .01 level. Therefore, as Hypothesis I predicted, when there is a negative company balance in a particular year, the individual increases his contributions in the following year in an attempt to meet the company's expectations. Conversely, and not so happily for the company, when there is a positive company balance in a given year, the individual lowers his contributions in the next year.

According to Hypothesis II, when company expectations and individual contributions are not equal, company expectations will change so as to approach the level of individual contributions and thus restore equilibrium. Again in terms of company balance, this means that the change in company expectations in a given year will be directly proportional to the balance in the preceding year. Therefore, this hypothesis was tested by measuring the correlation between these two variables, with the change in individual contributions partialled out to control the effects of individual coping. Again, the sample consisted of 196 subject-years, and there were 48 degrees of freedom.

This partial correlation between company balance in a given year and the change in company expectations during the following year is 0.38, significant at the .01 level; therefore, company coping tends to restore equilibrium. When an individual contributes more than is expected of him in a given year (i.e., has a positive company balance), the company reacts by raising its expectations in the next year. On the other hand, when the employee fails to meet expectations, the company lowers it's expectations in the following year.

Hypothesis III states that persistent failure of individuals to meet company expectations will tend to result in termination, thus reducing disequilibrium in the total system. This assertion was tested by dividing the sample (terminators and nonterminators) into two groups: the positive contribution group (those whose company balance was zero or greater in the majority of their five or less years with the company) and the negative contribution group (those whose company balance for the majority of these years was less than zero).[16] According to Hypothesis III the termination rate (ratio of number of terminators to total group size) should be significantly higher for the negative contribution group than for the positive contribution group. This hypothesis, then, requires a test for the significance of the difference between two proportions.

There were 44 men in the positive contribution group, of whom five terminated, yielding a rate of 5/44 or 0.124. However, six of 16 men in the negative contribution group left the company, a termination rate of 0.375. This rate is higher than that for the positive contribution group, and the difference is statistically significant at the .03 level of confidence. Therefore, the data demonstrate that men who consistently fail to meet company expectations are more likely to leave the organization than are those who turn in stronger performances.

Discussion

The data support all three hypotheses. When there is an imbalance between what the company expects of its employees and what the employees contribute, the organization tends to raise or lower its expectations, and individuals tend to increase or decrease their contributions; thus, expectations and contributions approach a common level and equilibrium is restored. Also, when individual employees consistently fail to meet company expectations, the contract between the individual and the organization tends to be terminated, thus reducing the total amount of disequilibrium in the system.

These results, although based on data from only one company, emphasize the relevance of the concept of homeostasis to the study of organizations; there are indeed forces operating within organizations to maintain or restore equilibrium. At this point, we will examine some specific effects of the homeostatic tendencies which our results have illustrated.

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[16] When a person was with the company for an even number of years, the *average* of his yearly company balance scores determined the category to which he was assigned.

As was noted earlier, Barnard[16] has suggested two conditions that must be met if an organization is to survive. The first is organizational *efficiency*, which can be defined as individual satisfactions that induce members to participate and which strengthen group solidarity. Barnard defines the second condition, organizational *effectiveness*, as the accomplishment of the organization's goals, such as productivity or other forms of adaptation to a competitive external environment.

The nature of the interaction between the two conditions is not at all clear.[17] Nevertheless, it seems profitable to discuss the effect of contract equilibrium and disequilibrium on each condition in turn so that we may draw some inferences regarding the functional and dysfunctional effects of homeostatic forces in organizations.

Contract Equilibrium and Organizational Efficiency

Recently, psychologists[18] have emphasized some aspects of human motivation that were largely overlooked or ignored by earlier theorists. In particular, there has been a growing interest in an exploration of the individual's need to develop, to master his environment, and to realize his full potential as a human being. Maslow[18a] has been quite explicit in suggesting that when an individual's physiological, safety, social, and esteem needs have been satisfied, the need for self-actualization becomes prepotent.

Organizational theorists concerned with individual personality[19] have argued that today's industrial organization frequently does not provide enough challenge and stimulation to allow its members the opportunity to gratify their needs for achievement, self-actualization, and mastery over their environment.

Contract equilibrium implies an exact balance between what the organization expects of a man and what he contributes to the organization; this condition reflects the absence of challenge and stimulation. However, if company expectations are set at a challenging level (i.e., one that exceeds the level of past contributions), the organization is providing a context in which the individual's needs for self-growth and mastery can be satisfied. It seems logical to conclude that homeostatic forces are not adaptive with regard to the gratification of human motives; in fact, a state of contract equilibrium may serve to *prevent* individuals from satisfying their highest needs in the context of their careers.

It should be recognized that Maslow's safety needs, and perhaps other lower order needs as well, are most likely to be gratified in a situation characterized by contract equilibrium, by an exact balance between what the company expects and what the individual contributes. This situation affords a degree of security that can never be present in a challenging situation. It should be emphasized, however, that in terms of both the quality of gratification and the quality of individual contributions there is an important distinction between tension-elimination and constructive tension-utilization. Kurt Goldstein has expressed the difference in the following way:

"The two emotions of joy and pleasure play essentially different roles in regard to self-realization; they belong to different moods. Pleasure may be a necessary state of respite. But it is a phenomenon of stand-still; it is akin to death. It separates us from the world and the other individuals in it; it is equilibrium, quietness. In joy there is disequilibrium, but it is productive disequilibrium, leading toward fruitful activity and a particular kind of self-realization."[20]

Bales[21] has maintained that differentiation among group members in terms of their worth or value in the group creates strains that disrupt group solidarity, even though

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[16]See [3].

[17]See Parsons, Talcott, *Structure and Process in Modern Society* (New York, The Free Press, 1964) for a fuller statement of the position that adaptation and goal attainment can be maximized only at the expense of integration and pattern maintenance. See Blake, Robert, and Mouton, Jane, *The Managerial Grid* (Houston, Gulf Publishing Company, 1964), Argyris, Chris, *Integrating the Individual and the Organization* (New York, Wiley, 1964), and Likert, Rensis, *New Patterns of Management* (New York, McGraw-Hill, 1961) for statements of the position that adaptation and integration can be increased simultaneously.

[18]See, for example, Maslow, A. H., *Motivation and Personality* (New York, Harper, 1954), Rogers, Carl, *On Becoming a Person* (Boston, Houghton Mifflin, 1961) and White, Robert W., "Motivation Reconsidered: the Concept of Competence," *Psychological Review* 66, 1959, pp. 297-333.

[18a]See [11].

[19]See, for example, McGregor, Douglas, *The Human Side of Enterprise* (New York, McGraw-Hill, 1960), Argyris, Chris, *op. cit.*, and Drucker, Peter, *The Practice of Management* (New York, Harper, 1954).

[20]Goldstein [8], p. 251.

[21]See [2].

such differentiation is necessary for the group to cope effectively with the demands of the external environment. Disequilibrium in terms of imbalance between company expectations and individual contributions increases differentiation. Thus it follows that contract disequilibrium disturbs an existing state of solidarity.

The differentiating effects of contract disequilibrium can be found in many occurrences common to organization life. Individuals who meet or exceed the expectations of the organization will be rewarded with better jobs, larger or more frequent merit raises, and perhaps greater authority. Employees who fail to meet company expectations will be placed in lower status positions, and will be rewarded less.[22] Supervisors may be threatened by highly productive subordinates and will usually experience uncomfortable relations with subordinates who are not producing at an acceptable level. Conversely, subordinates who are contributing more than expected will tend to be jealous or resentful of their superiors, while those who are under-producing will be afraid of their bosses and jealous or resentful of their more-successful colleagues.

In sharp contrast, a situation where expectations and contributions are in balance will be characterized by greater group harmony and solidarity. Differences among peers will be minimized, and relations between superiors and subordinates will not be marred by pressures stemming from performance evaluation.

We can conclude that homeostatic forces tend to maintain or restore the solidarity of the group or organization. This is directly in line with Bales' position that there is a strain present in every social system that "exerts a dissolving, undermining, equalizing, or curbing effect on the differential distribution of status, on differences in authority, differences in distribution of property, and differences in functional roles. . ."[23] The homeostatic force *is* the strain to which Bales is referring.

This strain manifests itself in various social phenomena. Our data show, for example, that employees who consistently undercontribute tend to leave the organization, thus reducing differentiation and disequilibrium in the total system. Back[24] has shown that pressures toward agreement are stronger in highly cohesive groups than in less cohesive groups. This is consistent with the fact that a deviant is the target of an above-average number of influence-attempts, as other group members try to increase his incorporation into the group.[25]

It is interesting to speculate regarding the perceptual processes that serve the interests of group integration and solidarity by reducing the *perceived* imbalance between contributions and expectations. Many supervisors, particularly those who are relatively insecure, will have a strong need to believe their work group is highly effective. If so, they will also have a tendency to perceive poorly-performing subordinates as more competent than they really are and to expect less of such a subordinate than of more capable persons doing the same job. Or they may perceive an employee with only one skill as an expert in a particular area, even though he may be no more competent in that area than other "non-experts" with a wider range of abilities. In the same vein we can speculate that some supervisors will be threatened by highly competent subordinates and will display a tendency to perceive them as contributing less than they actually are, or to set expectations for such persons at an unrealistically high level. The common element in all these perceptual distortions is the tendency for the supervisor to see the imbalance (either positive *or* negative) between contributions and expectations as being smaller than it actually is.

Contract Equilibrium and Organizational Effectiveness

In exploring the relationship between tension and productivity, it is important to consider that an employee tends to produce what the company expects of him.[26] Even more striking is the fact that employees of whom a great deal is expected during their first year with an organization will contribute significantly more to the organization during the ensuing five years than will employees given less challenging first-year

[22] See [5].

[23] Bales [2], pp. 127, 128.

[24] See [1].

[25] See [7].

[26] See [5].

jobs.[27] It follows, then, that if the organization decreases tension by lowering its expectations to conform to what an individual is contributing, the cost will be a decrease in individual contributions or productivity.

There are occasions, however, when reducing the discrepancy between expectations and contributions by lowering expectations may facilitate increased productivity. Stedry and Kay,[28] in a recent study of the effects of goal-setting on productivity, demonstrated that if goals or expectations are set too high, they are perceived by the individual as impossible, and his productivity declines. However, goals or expectations that are higher than normal but which are perceived as challenging (instead of impossible) lead to an *increase* in productivity.

If we regard a discrepancy between company expectations or goals and individual contributions as a source of motivation for individuals to produce, then the Yerkes-Dodson Law,[29] one of the most enduring of psychological principles, is applicable. In general terms, this law states that a moderate level of motivation is optimal for complex problem-solving. If motivation is too low, individuals will not be motivated to work at the task, while excessively high motivation causes problem-solving efficiency to decline. Both the Stedry and Kay study and the Yerkes-Dodson Law suggest that the critical factor is the *size* of the discrepancy between what the company expects and what the individual is contributing. If company expectations exceed individual contributions to the degree that the individual perceives the company's expectations as impossible to meet, then lowering expectations will both increase productivity and decrease tension. However, if expectations are lowered to conform exactly to individual contributions, then a major source of external motivation will be eliminated and productivity can be expected to fall off.

Setting Company Expectations

Any discussion of organization strategy must acknowledge the fact that the way company expectations are set is as critical as the level at which they are set. There is reason to believe that collaborative goal-setting will contribute more toward organization survival than unilateral goal-setting by the organization.[30]

Most individuals have needs for inclusion, self-control, status, recognition, and the need to know as much as possible about their environment. When employees participate in the formulation of company expectations regarding their performance, any or all of these needs may be gratified.

When a manager shares authority for setting subordinates' performance goals, he effectively decreases the amount of differentiation between himself and his subordinates. This will serve to weaken forces which disrupt group integration and solidarity.[31]

Finally, there is evidence which indicates that participation by employees in goal-setting leads to greater acceptance of the goals, more goal-related activity, and higher productivity.[32]

Conclusions

The results of the study indicated that contract disequilibrium, or the discrepancy between company expectations and individual contributions, tends to decrease over time. These results were used as evidence for the presence of homeostatic forces in organizations.

It was concluded that these forces toward equilibrium facilitate organization integration or solidarity, but that a moderate amount of tension or disequilibrium is optimal for the gratification of employee's higher order needs and for maximizing the effectiveness of the organization.

A strategy of deliberately introducing tension into the system by setting company expectations slightly higher than past contributions was suggested; the organization would then make use of homeostatic forces to reestablish equilibrium at a higher level of performance or productivity. The *process* of setting company expectations was examined, and the conclusion drawn that collaborative goal-setting will contribute more toward meeting conditions necessary for long-range survival than unilateral goal-setting by the organization.

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[27] See [5].

[28] See [15].

[29] See [16].

[30] For a comparison of the effects of collaborative and unilateral goal-setting, see McGregor, Douglas, "An Uneasy Look at Performance Appraisals," *Harvard Business Review*, May-June, 1957, pp. 89-94.

[31] See [2].

[32] See [4], [6], and [12].

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The Industrial Management Review is published twice each year by the Industrial Management Review Association, Massachusetts Institute of Technology, 50 Memorial Drive, Cambridge (02139).

Editors
Alan L. Danzis, Norman W. Kneissler, John E. Osborne.

Subscriptions
$2 per year (two issues); 3 years $5. Reprints of individual papers are available in quantities of 25 or more (prices on request). Back issues are available upon request at $1.25 per copy.

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